

Amendments to the Claims:

This listing of claims will replace the prior version of claims in the application:

Listing of Claims:

Claims 1-19 (Cancelled)

20. (Currently amended) A single crystal silicon wafer comprising a front surface, a back surface, a lateral surface joining the front and back surfaces, a central axis perpendicular to the front and back surfaces, and a segment which is axially symmetric about the central axis extending substantially from the front surface to the back surface in which crystal lattice vacancies are the predominant intrinsic point defect, the segment having a radial width of at least about 25% of the radius and containing agglomerated vacancy defects and a residual concentration of crystal lattice vacancies wherein (i) the agglomerated vacancy defects have a radius of less than about 70 nm, and an average void density of greater than $1 \times 10^7 \text{ cm}^{-3}$ and (ii) the residual concentration of crystal lattice vacancy intrinsic point defects is less than the threshold concentration at which uncontrolled oxygen precipitation occurs upon subjecting the wafer to an oxygen precipitation heat treatment.

21. (Original) The wafer of claim 20 wherein the wafer is capable of having a concentration of oxygen precipitates of less than $1 \times 10^8 \text{ cm}^{-3}$, upon being subjected to a rapid thermal anneal in which the wafer is rapidly heated to a temperature of 1200°C in the essential absence of oxygen and then cooled, and then subjected to an oxygen precipitation heat treatment, consisting essentially of annealing said wafer at 800°C for 4 hours and then at 1000°C for 16 hours.

22. (Original) The wafer of claim 20 wherein said wafer has a nominal diameter of at least 200 mm.

23. (Original) The wafer of claim 20 wherein the segment has a width of at least 50% of the radius of the wafer.

24. (Original) The wafer of claim 20 wherein the segment has a width of at least 75% of the radius of the wafer.

25. (Original) The wafer of claim 20 wherein the segment has a width of at least 95% of the radius of the wafer.

26. (Original) The wafer of claim 20 wherein the agglomerated vacancy defects have an average radius of less than 60 nm.

27. (Original) The wafer of claim 20 wherein the agglomerated vacancy defects have an average radius of less than 50 nm.

28. (Original) The wafer of claim 20 wherein the agglomerated vacancy defects have an average radius of less than 40 nm.

29. (Original) The wafer of claim 20 wherein the agglomerated vacancy defects have an average radius of less than 30 nm.

30. (Cancelled) The wafer of claim 20 wherein the average void density is less than $1 \times 10^8 \text{ cm}^{-3}$.

31. (Cancelled) The wafer of claim 20 wherein the average void density is less than $5 \times 10^7 \text{ cm}^{-3}$.

32. (Cancelled) The wafer of claim 20 wherein the average void density is less than $1 \times 10^7 \text{ cm}^{-3}$.

33. (Cancelled) The wafer of claim 20 wherein the average void density is less than $5 \times 10^6 \text{ cm}^{-3}$.

34. (Cancelled) The wafer of claim 20 wherein the average void density is greater than $5 \times 10^6 \text{ cm}^{-3}$.

35. (Cancelled) The wafer of claim 20 wherein the average void density is greater than $1 \times 10^7 \text{ cm}^{-3}$.

36. (Original) The wafer of claim 20 wherein the average void density is greater than $5 \times 10^7 \text{ cm}^{-3}$.

37. (Original) The wafer of claim 20 wherein the average void density is greater than $1 \times 10^8 \text{ cm}^{-3}$.

38. (Original) The wafer of claim 20 wherein the oxygen content is less than 13 PPMA.

39. (Original) The wafer of claim 38 wherein the carbon concentration is less than $5 \times 10^{16} \text{ atoms/cm}^3$.

40. (Original) The wafer of claim 39 wherein the nitrogen content is less than $1 \times 10^{13} \text{ atoms/cm}^3$.

41. (Original) The wafer of claim 38 wherein the nitrogen content is less than $1 \times 10^{13} \text{ atoms/cm}^3$.

42. (Original) The wafer of claim 20 wherein the carbon concentration is less than $5 \times 10^{16} \text{ atoms/cm}^3$.

43. (Original) The wafer of claim 42 wherein the nitrogen content is less than 1×10^{13} atoms/cm³.

44. (Original) The wafer of claim 20 wherein the nitrogen content is less than 1×10^{13} atoms/cm³.

45. (Original) The wafer of any of claims 20-44 wherein the residual vacancy concentration is less than 3×10^{12} cm⁻³.

46. (Original) The wafer of claim 20 wherein the residual vacancy concentration is less than 2×10^{12} cm⁻³.

47. (Original) The wafer of claim 20 wherein the residual vacancy concentration is less than 1×10^{12} cm⁻³.

48. (Original) The wafer of claim 20 wherein the residual vacancy concentration is less than 5×10^{11} cm⁻³.

49. (Original) The wafer of claim 20 wherein the residual vacancy concentration is less than 1×10^{11} cm⁻³.

50. (Original) The wafer of claim 20 wherein the residual vacancy concentration is less than 5×10^{10} cm⁻³.

51. (Original) The wafer of claim 20 wherein the residual vacancy concentration is less than 1×10^{10} cm⁻³.

52. (Original) The wafer of claim 20 wherein the wafer has a homoepitaxial layer deposited on the front surface thereof.

Claims 53-59 (Cancelled)